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## \*BIBDATASHEET\*

Bib Data Sheet

CONFIRMATION NO. 7035

<b>SERIAL NUMBER</b> 09/974,759	<b>FILING OR 371(c) DATE</b> 10/09/2001 <b>RULE</b>	<b>CLASS</b> 345	<b>GROUP ART UNIT</b> 2675	<b>ATTORNEY DOCKET NO.</b> IMM142
<b>APPLICANTS</b> Stephen D. Rank, San Jose, CA;				
** CONTINUING DATA *****				
** FOREIGN APPLICATIONS *****				
<b>IF REQUIRED, FOREIGN FILING LICENSE GRANTED</b> ** 11/29/2001				
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after met Allowance		<b>STATE OR COUNTRY</b> CA	<b>SHEETS DRAWING</b> 5	<b>TOTAL CLAIMS</b> 28
Verified and Acknowledged Examiner's Signature _____ Initials _____				<b>INDEPENDENT CLAIMS</b> 4
<b>ADDRESS</b> 022903				
<b>TITLE</b> HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM COMPUTER DEVICES				
<b>FILING FEE RECEIVED</b> 1356	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue ) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	

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Attorney Docket No. IMMR-003/00US

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of **Stephen D. RANK**

Serial No.: 09/974,759

Examiner: Paul A. Bell

Confirmation No.: 7035

Art Unit: 2675

Filed: October 9, 2001

For: **HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM  
COMPUTER DEVICES**

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2011 South Clark Place  
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**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.97(b)**

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56,

Applicant(s) hereby submits the following information in conformance with 37 C.F.R.

§§1.97 and 1.98.

- ☒ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is included in electronic format on the enclosed CD-Rom.
- ☐ No copies of the publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. \_\_\_ to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.
- ☐ Publication(s) \_\_\_ listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to \_\_\_ application serial no. \_\_\_ and mailed on \_\_\_.

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- ☐ Enclosed is a copy of a non-English publication(s) \_\_\_\_\_. Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).
- ☐ Enclosed is a copy of a non-English publication(s) \_\_\_\_\_. English language publication \_\_\_\_ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) \_\_\_\_ for which an English translation is not available.
- ☐ Enclosed is an English translation of non-English publication(s) \_\_\_\_ cited in the attached Form PTO/SB/08A.
- ☐ Enclosed is a copy of pending patent Application Serial No. \_\_\_\_\_.

This Information Disclosure Statement is filed within any one of the following time periods:

- ☐ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
- ☐ before the mailing date of a first office action on the merits; or
- ☒ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

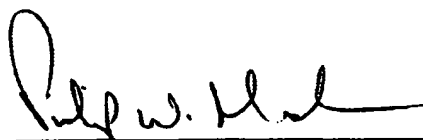
It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: June 3, 2004

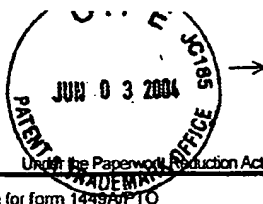
Cooley Godward LLP  
ATTN: Patent Group  
One Freedom Square  
Reston Town Center  
11951 Freedom Drive  
Reston, VA 20190-5656  
Tel: (703) 456-8000  
Fax: (703) 456-8100

Respectfully submitted,  
COOLEY GODWARD LLP

By:



Philip W. Marsh  
Reg. No. 46,061



Substitute for form 1449A PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **1** of **3**

### Complete if Known

Application Number	09/974,759
Filing Date	October 9, 2001
First Named Inventor	Stephen D. Rank
Art Unit	2675
Examiner Name	Paul A. Bell
Attorney Docket Number	IMMR003/00US

### U.S. PATENT DOCUMENTS

Examiner	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	6,422,941		7/23/2002	Thomer et al.	
	A2	6,160,489		12/12/2000	Perry et al.	
	A3	6,111,577		8/29/2000	Zilles et al.	
	A4	5,690,582		11/25/1997	Ulrich et al.	
	A5	5,575,761		11/19/1998	Hajianpour	
	A6	5,437,607		8/1/1995	Taylor	
	A7	5,436,622		7/25/1995	Gutman et al.	
	A8	5,283,970		2/8/1994	Aigner	
	A9	5,186,695		2/16/1993	Mangseth et al.	
	A10	5,175,459		12/29/1992	Daniel et al.	
	A11	5,165,697		11/24/1992	Johnson	
	A12	5,022,384		6/11/1991	Freels	
	A13	4,885,565		12/5/1989	Embach	
	A14	4,484,191		11/20/1984	Vavra	
	A15	4,464,117		8/7/1984	Foerst	
	A16	4,333,070		6/1/1982	Barnes	
	A17	4,262,549		4/21/1981	Schwellenbach	
	A18	4,127,752		11/26/1978	Lowthorp	
	A19	2,972,140		2/14/1961	Hirsch	

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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
	B1	JP	H2-185278		7/19/1990	Taito Corporation	
	B2	JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
	B3	JP	H7-24147		1/27/1995	Sega Corporation	
	B4	JP	H5-192449		8/3/1993	Taito Corporation	
	B5						

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Signature

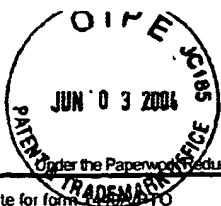
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **2** of **3**

Complete if Known

Application Number	09/974,759
Filing Date	October 9, 2001
First Named Inventor	Stephen D. Rank
Art Unit	2675
Examiner Name	Paul A. Bell
Attorney Docket Number	IMMR003/00US

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C1	PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
	C2	CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
	C3	WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
	C4	BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
	C5	JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
	C6	KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," PRESENCE, 4(4):387-402, Harvard Univ., 1995.
	C7	AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
	C8	EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, <i>Dynamic Systems and Control</i> , Volume 1, ASME 1994.
	C9	GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
	C10	PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 <sup>nd</sup> Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
	C111	"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
	C12	OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
	C13	KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
	C14	LAKE, "Cyberman from Logitech," at <a href="http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html">http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html</a> , 1994.
	C15	"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

Examiner  
Signature

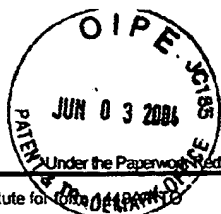
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Substitute for Form 101 (Rev. 10-1997)

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 3 of 3

### Complete if Known

Application Number	09/974,759
Filing Date	October 9, 2001
First Named Inventor	Stephen D. Rank
Art Unit	2675
Examiner Name	Paul A. Bell
Attorney Docket Number	IMMR003/00US

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	C16	"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
	C17	SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994
	C18	YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992
	C19	NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.
	C20	ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance in Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.

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Attorney Docket No. IMMR-003/00US

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of **Stephen D. RANK**

Serial No.: 09/974,759

Examiner: Paul A. Bell

Confirmation No.: 7035

Art Unit: 2675

Filed: October 9, 2001

For: **HAPTIC FEEDBACK SENSATIONS BASED ON AUDIO OUTPUT FROM  
COMPUTER DEVICES**

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**INFORMATION DISCLOSURE STATEMENT TRANSMITTAL**

Enclosed is an Information Disclosure Statement and accompanying Form  
PTO/SB/08A for the above-identified patent application.

- ☒ In accordance with 37 C.F.R. §1.97(b), no additional fee for submission of the IDS is required.
- ☐ In accordance with 37 C.F.R. §1.97(c), also enclosed is:
  - ☐ the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p); or
  - ☐ a statement as specified in 37 C.F.R. §1.97(e).
- ☐ In accordance with 37 C.F.R. §1.97(d), a statement as specified in 37 C.F.R. §1.97(e) and the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) are also enclosed.
- ☐ Check No. \_\_\_ in the amount of \$\_\_\_ for the total fee is attached.
- ☒ A return receipt postcard is also enclosed.
- ☐ Please charge \$\_\_\_ to Deposit Account No. 50-1283 for the total fee. This paper is being submitted in duplicate.

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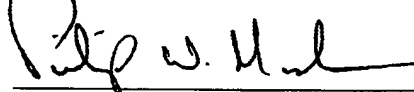
Dated: June 3, 2004

Cooley Godward LLP  
ATTN: Patent Group  
One Freedom Square  
Reston Town Center  
11951 Freedom Drive  
Reston, VA 20190-5656  
Tel: (703) 456-8000  
Fax: (703) 456-8100

Respectfully submitted,

COOLEY GODWARD LLP

By:



Philip W. Marsh

Reg. No. 46,061

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Attorney Docket No. IMMR-003/00US

PATENT

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Serial No.: 09/974,759

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Respectfully submitted,  
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Cooley Godward LLP  
ATTN: Patent Group  
One Freedom Square  
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**REQUEST FOR CONTINUED EXAMINATION  
UNDER 37 C.F.R. §1.114**

Applicants submit this request for continued examination under 37 C.F.R. §1.114 for the above-identified application.

[x] Please consider the following submission(s) required under 37 C.F.R. §1.114:

- ☐ The amendment/reply under 37 C.F.R. §1.116 previously filed on
- ☐ The arguments in the Appeal Brief and/or Reply Brief previously filed on
- ☐ The enclosed amendment/reply submitted in response to the Official Action dated
- ☒ Information Disclosure Statement, Transmittal, PTO/SB/08A
- ☐ Petition for Extension of Time
- ☒ Other: **CD-Rom** containing electronic copies of (43) references.

[x] Also enclosed is:

- ☒ Return receipt postcard
- ☒ Check in the amount of **\$770.00** for the total fee as calculated below.
- ☐ An Assertion of Entitlement to Small Entity Status was submitted previously.
- ☒ Other: Change of Correspondence Address.

☐ The fee for the request for continued examination is calculated below ☐ and in accordance with the enclosed amendment:

06/04/2004 SSESHE1 00000089 09974759

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	NO. OF CLAIMS	CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	25	= 28	0	x \$18.00	\$0.00
Independent Claims	7	= 7	0	x \$86.00	\$0.00
Multiple dependent claims not previously presented, add \$290.00					
Total Amendment Fee					
Continued Examination Fee under 37 C.F.R. §1.17(e) of \$770.00					\$770.00
If small entity status is applicable, subtract 50% of Total Amendment Fee and Continued Examination Fee					
Other fees: (specify)					
<b>TOTAL FEE DUE</b>					<b>\$770.00</b>

☒ A check for the total fee is attached.

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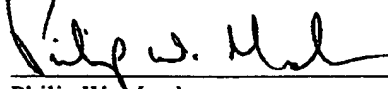
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